

Interview Summary	Application No. 09/935,612	Applicant(s) BLISH ET AL.	
	Examiner	Art Unit 2611	

All participants (applicant, applicant's representative, PTO personnel):

(1) Justin Mistleh

(3) Tom V. Ho

(2) Wendy Buskop

(4) _____

Date of Interview: 11/16/04

Type: a) ☐ Telephonic b) ☐ Video Conference

c) ☒ Personal [copy given to: 1) ☐ applicant 2) ☒ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.

If Yes, brief description: _____

Claim(s) discussed: 1/12/20

Identification of prior art discussed: Lambert

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

• Proposed Amendment appears to overcome Lambert with respect to Claims 1's 20.


Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: _____

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

• Applicant has agreed to Cancel Claims 12-19. (see Attachment A).

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.


Examiner's signature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Attachment A

83027NAB
Customer No. 01333

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Nelson A. Blish, et al

A METHOD AND APPARATUS FOR
CREATING A PRESELECTED
LENTICULAR IMAGE

Serial No. 09/935,612

Filed 23 August 2001

Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Sir:

Group Art Unit: 2612

Examiner: Misleh, Justin P.

I hereby certify that this correspondence is being
deposited today with the United States Postal
Service as first class mail in an envelope addressed
to Commissioner For Patents, P.O. Box 1450,
Alexandria, VA 22313-1450.

Tara Piccone

Date

AMENDMENT

In response to the Office Action mailed October 5, 2004, please
amend the above-identified application without prejudice as follows:

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims are reflected in the listing of the claims which
begins on page 4 of this paper.

Remarks/Arguments begin on page 10 of this paper.

Amendments to the Specification:

This listing of specified paragraphs of the Specification will replace all prior versions, and listings, of the specified paragraphs in the application:

Paragraph beginning on Page 2, Line 3 of the Specification as filed:

Lenticular images 60, as shown in Figure 1, are currently created by selecting several digital photographs, or digitizing photographic prints, and combining the individual photographs. In this example, a composite image comprised of eight photographs is scanned onto recording medium 62 by an eight-sided polygon 34 ~~70~~. Facet 71 of polygon 70 lays down scanline 81 relating to a first original image. Facet 72 lays down scanline 82 from a second original image. This process is repeated with each facet laying down one line from each of the eight individual images until medium 60 has been advanced the width of one lenticule 64. The process is repeated with facet 71 laying down a second line from the first image as scanline 91, facet 72 laying down a second line of a second original image as scanline 92, and so forth ~~for facets 73-78~~, until the media 62 has been advanced the width of another lenticule 64. Thus, each original image is laid down by only one facet of polygon 34 ~~70~~.

Paragraph beginning on Page 6, Line 18 of the Specification as filed:

When an action preselected lenticular image is created the preselected lenticular image is displayed so that the lenticules are oriented horizontally with respect to the viewer ~~from angle 116~~. To view the action preselected lenticular image the viewer would orient the camera so that the lenticules 64 are parallel to the viewers eyes. The camera is tilted up and down to provide motion for the action preselected lenticular image.

Paragraph beginning on Page 6, Line 24 of the Specification as filed:

It will be understood that the embodiments shown are simplified for purposes of illustration. A typical CCD or CMOS sensor 14 for use in the present invention should be at least three mega-pixels in capacity to produce preselected lenticular images. This will produce sub-images of at least one mega-

pixel each, lower resolution images, however, may be acceptable in some applications.

Paragraph add the following to the Parts List beingg on Page 8of the Specification as filed:

14. CMOS sensors

73-78. Facets

116. Angle

Applicant believes no new matter was added with these amendments.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application: *Claims 12 to 19 are cancelled.*

Listing of Claims:

1. (currently amended) A method for creating a preselected lenticular image using a charged coupled device, comprising the steps of:
creating a first digital image on a plurality of first charged coupled device (CCD) sensor columns in the charged coupled device at a first position;
moving the charged couple device to a second position after creating the first digital image;
creating a second digital image on a plurality of second charged coupled sensor columns in the charged coupled device at a second position after moving the charged coupled device to the second position; and
storing said first and second digital images in an alternating interleaved fashion forming an interleaved image.
2. (currently amended) A method as in claim 1 wherein each of said first charged coupled device sensor columns is adjacent to each of said second charged coupled device sensor columns.
3. (currently amended) A method as in claim 1 comprising the additional steps of:
moving the charged coupled device to a third position after creating the second digital image and creating a third digital image on a plurality of third CCD-charged coupled device sensor columns in the charged coupled device.
4. (currently amended) A method as in claim 3 wherein each of said first charged coupled device sensor columns is adjacent to each of said second charged coupled device sensor columns and wherein each of said third charged coupled device sensor columns is adjacent to each of said second charged coupled device sensor columns.

5. (currently amended) A method as in claim 1 comprising the additional step of:

previewing said ~~a~~ preselected lenticular image after ~~storing~~ forming said interleaved image.

6. (currently amended) A method as in claim 5 wherein said interleaved image is transferred to a lenticular screen for previewing the preselected lenticular image ~~is previewed on a~~ and the lenticular screen is mounted on a digital camera.

7. (currently amended) A method as in claim ~~5~~ 6 wherein said ~~preselected lenticular image is previewed on a~~ lenticular screen is a lenticular liquid crystal device (LCD) ~~mounted on a digital camera~~.

8. (currently amended) A method as in claim 7 comprising the additional step of:

orienting lenticules on said lenticular liquid crystal device ~~LCD screen~~ vertically with respect to a viewer for previewing three dimensional (3D) preselected lenticular images.

9. (currently amended) A method as in claim 7 comprising the additional step of:

orienting lenticules on said lenticular liquid crystal device ~~LCD screen~~ parallel with respect to a viewer for previewing action preselected lenticular images.

10. (original) A method as in claim 1 wherein said preselected lenticular image is a three dimensional (3D) image.

11. (original) A method as in claim 1 wherein said preselected lenticular image is an action image.

12. ~~currently amended~~ ^{digital} A digital camera for creating a preselected lenticular image ~~improvements~~ therein comprising:
a sensor device for capturing images in a pixelated fashion;
and

wherein said sensor device is divided into groups of columns and a first ~~photograph image~~ is captured on a first column of each of said groups, and a second ~~image photograph~~ is captured on a second column of each of said groups; and

wherein the first image is captured at a first position and the second image is then captured at a second position forming a preselected lenticular image.

13. ~~currently amended~~ ^{deleted} A digital camera as in claim 12 wherein said first and said second ~~images photographs are stored as~~ form an interleaved image.

14. ~~currently amended~~ ^{deleted} A digital camera as in claim 12 wherein a lenticular screen is mounted on said digital camera, and wherein the lenticular screen is used to previews said a preselected lenticular image from the formed interleaved image.

15. ~~original~~ ^{deleted} A digital camera as in claim 14 wherein action preselected lenticular images are previewed by viewing with lenticules on said lenticular screen oriented in a direction parallel to a viewers eyes.

16. ~~currently amended~~ ^{deleted} A digital camera as in claim ~~12~~ 14 wherein 3D preselected lenticular images are viewed with lenticules on said lenticular screen oriented in a ~~direction perpendicular~~ direction vertical to a viewers eyes.

17. ~~currently amended~~ ^{deleted} A digital camera as in claim 12 further comprising a mode selector, and wherein a the mode selector on said digital camera changes the mode said digital camera capture mode from a single image capture to a preselected lenticular image capture.

deleted
18. (~~currently amended~~) A digital camera as in claim 12

~~wherein~~ further comprising a mode selector on said digital camera for
changing[[s]] the mode a capture mode on said digital camera between a single
image mode, a 3D imaging mode, and an action imaging mode.

deleted
19. (~~currently amended~~) A digital camera as in claim 12 further
comprising wherein a burst mode switch adapted to set sets a frames per second
capture speed.

20. (currently amended) A method for creating a preselected
lenticular image using a complementary metal oxide semiconductor device
comprising the steps of:

creating a first digital image on a plurality of first
complementary metal oxide semiconductor (CMOS) sensor columns in the
complementary metal oxide semiconductor device at a first position;

moving the complementary metal oxide semiconductor to a
second position after creating the first digital image;

creating a second digital image on a plurality of second
CMOS complementary metal oxide semiconductor sensor columns in the
complementary metal oxide semiconductor device at the second position after
moving the complementary metal oxide semiconductor device to the second
position; and

storing said first and second digital images in an alternating
interleaved fashion forming an interleaved image.

21. (currently amended) A method as in claim 20 wherein each
of said first complementary metal oxide semiconductor device sensor columns is
adjacent to each of said second complementary metal oxide semiconductor device
sensor columns.

22. (currently amended) A method as in claim 20 comprising
the additional steps of:

moving the complementary metal oxide semiconductor device to a third position after creating the second digital image and creating a third digital image on a plurality of third CMOS complementary metal oxide semiconductor device sensor columns in the complementary metal oxide semiconductor device.

23. (currently amended) A method as in claim 22 wherein each of said first complementary metal oxide semiconductor device sensor columns is adjacent to each of said second complementary metal oxide semiconductor device sensor columns and wherein each of said third complementary metal oxide semiconductor device sensor columns is adjacent to each of said second complementary metal oxide semiconductor device sensor columns.

24. (currently amended) A method as in claim 20 comprising the additional step of:
 previewing said a preselected lenticular image after storing forming said interleaved image.

25. (cancelled)

26. (currently amended) A method as in claim 24 wherein said preselected lenticular image is previewed on a lenticular screen, wherein said lenticular screen is a lenticular liquid crystal device (LCD) mounted on a digital camera.

27. (currently amended) A method as in claim 26 comprising the additional step of:
 orienting lenticules on said lenticular LCD liquid crystal device screen vertically with respect to a viewer for viewing three dimensional (3D) preselected lenticular images.

28. (currently amended) A method as in claim 26 comprising the additional step of:

orienting lenticules on said lenticular liquid crystal device
~~LCD screen~~ parallel with respect to a viewer's eyes for previewing action
preselected lenticular images.

29. (original) A method as in claim 20 wherein said preselected
lenticular image is a three dimensional (3D) image.

30. (original) A method as in claim 20 wherein said preselected
lenticular image is an action image.

31. (cancelled)

Applicant believes no new matter was added with these
amendments.

REMARKS

Claims 25 and 31 have been cancelled from the present application. The claims remaining in the application are 1-24 and 26-30.

Drawings

The following drawings informalities have been amended.

The paragraph beginning on page 2, line 3 has been amended to delete the incorrect reference number, 31, for the eight-sided polygon. The correct reference number, 70, has been added.

Reference number 14, CMOS sensors, shown in Figure 3 has been added to the specification and Parts List.

Reference numbers 73-78, facets, shown in Figure 1, have been added to the specification and Parts List.

Reference number 116, angle, shown in Figure 4, has been added to the specification and Parts List.

Specification/Claim Objections

The Office Action has objected to claim 16 because of several informalities.

Antecedent basis for claim 16 has been corrected. Claim 16 now correctly depends on claim 14, as suggested by the Examiner and the term “perpendicular” has been deleted from claim 16 as suggested by the Examiner.

Rejection Under 35 U.S.C. § 102

The Office Action has rejected claims 1-5, 10-14, 16, 17, and 31 under 35 U.S.C. 102(e) for being anticipated by U.S. 6,750,904 (Lambert). This rejection is respectfully traversed.

The invention of the current application is for a method of taking and storing images using one image capture device with sets of columns, wherein one set takes a first picture and a second set of columns takes a second picture. The pictures are taken at a first position and at a second position to then be stored.

Claim 1 was rejected as anticipated by Lambert. Lambert teaches using a “camera system has n image capture devices, with segments of the image

captured by each device being used to generate an interleaved image...” (Column 6, Line 23-25). In contrast, the current application uses a single image capture device.

The patent to Lambert is for a camera with multiple lenses and and multiple image captureing devices. Lambert states, “Each of the plurality of image capture devices comprises a CCD array embedded in a semiconductor substrate such as a silicon suvstrate and in optical alignment with a lens.” (Column 5, Line 21-24). A plurality means that more than one image capture device is required by the Lambert patent. Applicant does not use “a plurality” of image capture device.

Claim 1, as amended, recites “moving the charged couple device to a second position.” Further, the current application states, “To capture a 3d preselected lenticular image the camera operator takes a first photograph at a first position ... A second photograph is taken at a second position, and a third photograph at a third position.” (Para [0024]).

The invention of Lambert takes multiple images simultaneously through a plurality of image capture devices this is expensive, weights more than a single image capture device, and has multiple repair and malfunction issues. In contract, the embodied invention of the current application uses one image capture device to capture images at different positions, it is less expensive, since it has fewer parts, it weighs less and has improved reliability since there are fewer parts to break down.

Claim 2 was also rejected as anticipated by Lambert. Claim 2 now recites “first charged coupled device sensor columns” to clarify that the columns are columns on the charged couple device. In contrast to the use of sensor columns, the Lambert patent states that “A first address line and a corresponding output data line connect to a first column of a first storage array.” (Column 6, Lines 2-4). The invention of Lambert and the embodiments of the current application are different in that the columns in the current application refer to columns on the sensor device and the columns of the Lamber patent refer to a storage device. Sensors are not storage devices.

Reconsideration of amended claims 1 and 2 in view of Lambert is respectfully requested.

Claim 3, was rejected as anticipated by Lambert. Claim 3, was amended to state, “moving the charged coupled device to a third position after creating the second digital image and”. Claim 3 is dependent on claim 1, and is believed distinguished from the Lambert patent for the same reasons stated in claim 1.

Reconsideration of amended claim 3 in view of Lambert is respectfully requested.

Claim 4 was rejected as anticipated by Lambert. Claim 4 was amended to state, “first charged coupled device sensor columns”. Claim 4 is also dependent on claim 1 and believed distinguishable from the Lambert patent for the same reasons stated in claim 1.

Dependant claims 5, 10, and 11 were rejected as anticipated by Lambert. Claim 5 is for previewing a lenticular image, and Claims 10, and 11, are for selecting the type of image. Claims 5, 10, and 11 depend from amended claim 1 and since amended claim 1 which is believed by applicant to be distinguishable from Lambert reconsideration of claims 5, 10, and 11 is requested.

Claim 12 was rejected as anticipated by Lambert. Claim 12 has been amended to include the following “wherein the first image is captured at a first position and the second image is captured at a second position”. By adding this language to the language of claim 12, claim 12 can be interpreted to be one sensor device used to take a image at a first position and then move the camera to a second position before taking the second image using the same one sensor device. The first image taken at the first position would be taken with the first set of sensor columns of the one sensor device and the second image would be taken with the second set of sensor columns of the one sensor device.

The invention of Lambert takes multiple images simultaneously through a plurality of image capture devices, the embodied invention of the current application uses one image capture device to capture images at different positions.

Claims 13, 14, 16, and 17 are dependant on claim 12. Since amended claim 12 is believed to be distinguishable from Lambert reconsideration of these dependant claims is requested.

Claim 31, was rejected as anticipated by Lambert. Claim 31 has been cancelled.

The applicant respectfully requests reconsideration of the claims in view of the claim amendments.

Rejection Under 35 U.S.C. § 103

The Office Action has rejected claims 18-24, 29, and 30 under 35 U.S.C. 103(a) as being unpatentable over U.S. 6,750,904 (Lambert). This rejection is respectfully traversed.

Claim 18 is for a mode selection switch, connected to the sensor device of claim 12. Claim 19 is for a burst mode selection switch, connected to the sensor of claim 12. Claims 18 and 19 are also dependant on claim 12. Amended claim 12 is believed distinguished from Lambert for the reasons discussed above, accordingly Reconsideration of these dependent claims is requested.

Claim 20 was rejected as anticipated by Lambert. Claim 20 has been amended to include the following “moving the complementary metal oxide semiconductor to a second position.” By adding this language to the language of claim 20 shows that the camera embodied in the current application uses only one image capture device. The image capture device is one complementary metal oxide semiconductor that is moved from a first position to a second position. The first image is taken at the first position and the second image is taken at the second position. The first image is taken on the first complementary metal oxide semiconductor columns and the second image is taken on the second complementary metal oxide semiconductor columns. The current application states, “To capture a 3d preselected lenticular image the camera operator takes a first photograph at a first position ... A second photograph is taken at a second position, and a third photograph at a third position.” (Para [0024])

The invention of Lambert takes multiple images simultaneously through a plurality of image capture devices, the embodied invention of the current application uses one image capture device to capture images at different positions.

Claims 21, 22, 23, 24, 29, and 30 are dependent from the independent claim 20. Claims 21, 22, 23, 24, 29, and 30 are believed distinguished from Lambert for the same reasons as discussed regarding claim 20.

The Office Action has rejected claims 6-9, 15, and 25-28 under 35 U.S.C. 103(a) as being unpatentable over Lambert (U.S. 6,750,904) in view of Kurahashi et al. (U.S. 6,278,480). This rejection is respectfully traversed.

The embodied invention in the current application is used to take multiple images from different positions on the same CCD or CMOS and display them on a lenticular screen.

The Kurahashi Patent is for a screen, "capable of displaying a stereoscopic image or a panorama image according to the selected mode." (Column 5, Line 26-27)

The patent to Kurahashi discloses the use of a lenticular screen; however, the Kurahashi patent does not add the missing elements of the Lambert Patent. The camera in the Lambert invention requires a plurality of image capturing devices to create an image to be displayed on the lenticular screen. The image of the current embodied invention is captured in a different way than that of the Lambert Patent. The Kurahashi patent is for a lenticular screen, which does not add the required missing elements of the Lambert Patent.

The applicant respectfully requests reconsideration of the claims in view of the claim amendments.

CONCLUSION

Dependent claims not specifically addressed add additional limitations to the independent claims, which have been distinguished from the prior art and are therefore also patentable.

In conclusion, the prior art cited by the Examiner does not disclose the limitations of the claims of the present invention, either individually or in combination. Therefore, it is believed that the claims are allowable.

If the Examiner is of the opinion that additional modifications to the claims are necessary to place the application in condition for allowance, she is invited to contact Applicant's attorney at the number listed below for a telephone interview and Examiner's amendment.

Respectfully submitted,

Attorney for Applicant(s)
Registration No. 29,134

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Facsimile: 585-477-4646

If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.